

BIO 26 PAL Worksheet

Week 14 (#2): The Reproductive System – Role-play (Hormones and the ovarian and menstrual cycle)

For today's role-play you will need four players and your whiteboard. Split the following roles a) - d) between your group members. Gonadotropin-releasing hormone will be addressed by all group members together.

- a) Follicle-stimulating hormone (FSH)
- b) Luteinizing hormone (LH)
- c) Ovaries
- d) Uterus

Introduction:

1. The discussion begins with GnRH, and all group members help describe 1) where GnRH originates, 2) at what point in life it becomes active, and 3) which group members (a) – d)) are directly affected by it.
2. Next, group members a and b should give some background information regarding 1) where they originate, 2) who they affect, and 3) what the inspiration for their name might have been.
3. Group members c and d should also provide some background information regarding 1) their location in the female body, and 2) their significance for the female reproductive system.

The plot: Begin your role-play directly after the last menstruation cycle has ended.

1. "A new beginning" – Day 0 of the ovarian/uterine cycles.
Group members a and b explain how they contribute to this "new beginning". Please include a) if you are stimulated or inhibited, b) how you are stimulated/inhibited, and c) who you are affecting (e.g. "I am the luteinizing hormone. Due to decreasing levels of _____ from _____, I am increased/decreased, which directly helps _____ to do _____; etc., etc.).

Group members c and d describe, how group members a and b affect them (e.g. "Due to increased levels of _____, my _____ started _____, which also led to _____.

Include the most important hormone involved here.

Team member c, include a feedback loop that helps your agenda!

Team member d, elaborate on the changes during this phase and how that's beneficial to the overall process.

2. "Ovulation"!
Group members a and b, describe your contribution to this important event. Include a feedback loop responsible for your behavior.

Group members c and d, what happens to you in this phase?

3. "Secretions"
Group members a and b should focus on the feedback loop that regulates their levels.

Group members c and d elaborate on what secretions dominate this phase, where those originate, and what effects they have on you.